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HOSTAGE TO OIL

World supply is so precious that more price spikes are inevitable

By: Marianne Lavelle
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If you gasped at the spiraling price of gasoline last year, your dismay might have been still more acute if the true cost had also been posted on the pump. America's 21 million-barrel-a-day petroleum habit reverberates far beyond the gas tank, from lackluster holiday sales at discount superstores to airlines ending the year awash in red ink despite robust travel and manufacturers in booming industries shutting their doors. Although as of last week crude oil had slid to $ 43 per barrel from its peak of $ 56 in mid-October, its price was still 32 percent higher than a year ago and 67 percent more than the day President Bush declared major combat operations over in Iraq. An immeasurable damper remains on the economy; just as hurricanes and pre-election jitters sparked the autumn run-up, the market knows that any new round of terrorism, political strife, or even a blast of cold weather could send the price skyward again.

"I can't tell you we won't see $ 20 oil again, but I also wouldn't be surprised to see $ 70 oil," says analyst Bill O'Grady of A. G. Edwards & Sons. It's nearly impossible to forecast, he says, "because the structure of the market has profoundly changed."

A few pessimistic observers say the world is simply running out of oil and is paying the price for its dependence on a finite resource. But most analysts see a more complicated reality: The supply is still there, but it is increasingly difficult to access and deliver to ever more oil-hungry consumers around the globe. It is a world where new demand for oil, led by China and India, is growing at a record clip, while threatened or unreliable regimes like Saudi Arabia and Iran control the largest share of petroleum reserves. Meanwhile, investors have entered the oil futures market in a big way, causing rapid price spikes as they seek out hefty returns. "We're not running out of oil in the ground," says James Burkhard, director of market research for consulting firm Cambridge Energy Research Associates. "But aboveground political, environmental, and economic trends will shape the future of oil prices."

In the view of the Bush administration, terrorism and political risks have conspired--with the help of speculators--to create a "terror premium," jacking up prices $ 10 to $ 12 above what they would be otherwise. "It is a rare coincidence that you have volatility in so many diverse places," reasons one administration official involved in energy issues. "At any moment, we're just one labor strike away from a price hike" (story, Page 50).

But far more is at work in the market than a temporary imbalance produced by the Iraq war or terrorism. A few dire forecasters say the world is nearing "Hubbert's Peak," named for the late geologist M. King Hubbert, who accurately predicted that oil production in the United States would reach its apex around 1970 and decline ever afterward. Although Hubbert's call that worldwide production would peak between 1995 and 2000 has not panned out, a cadre of "peak-oil theorists" maintain that his calculation was essentially sound. The day of reckoning has simply been delayed, they say, and may be at hand.

On the edge. That view is not widely held, but market observers generally agree that the world's so-called spare capacity has disappeared. That's the tapped reserves that could be quickly pumped onto the market by Saudi Arabia and other members of the Organization of Petroleum Exporting Countries, which typically have held back production to control oil prices. Through the late 1980s and 1990s, if there was a shortage, Saudi Arabia could turn on a few extra spigots, and demand would be quickly satisfied. "But if you have a bump in the market now--if there are labor problems in Venezuela or civil unrest in Nigeria that takes a chunk out of the market--you really don't have a safety net or a shock absorber," says Michael Rodgers, senior director of PFC Energy consulting firm. "That's why prices have moved to this new, structurally higher level."

Where did all the spare capacity go? To fuel all those jobs that have fled U.S. shores for Asia, with the world's two most populous countries, China and India, leading the pace in 2004. In fact, Asia accounted for nearly half of the 3.3 percent rise in world demand to 82.4 million barrels per day, the biggest increase since 1976 and "the single most important reason" for high oil prices, says CERA's Burkhard. Tens of thousands of factories across China now run on stand-alone diesel-oil generators--a reliable source of power but one that gobbles fuel. Fortunately, manufacturers are expected to switch to the electric grid as new coal and hydroelectric plants come on line, which is why many experts predict China's oil demand will ease somewhat in the coming year.

But even if industrial use lightens, automobiles are gaining ground as wealth spreads among China's 1.3 billion citizens. Car sales are growing 20 percent per year, and "potential growth is almost unlimited," says the U.S. Energy Information Administration. While the agency expects U.S. oil demand to climb 1.5 percent annually through 2025, it forecasts China's consumption to increase three times as rapidly. "Once again, people are underestimating demand growth, especially in China," says Phil Flynn, energy analyst for Alaron Trading Corp. "They're not going to be able to slow that animal down; it's going to be breathing fire, and that fire will be powered by oil."

China's thirst for oil has already had major geopolitical consequences: In deals it has brokered to lay claim to African oil, it has become chief arms supplier and diplomatic ally to the rogue state of Sudan as it wages a genocidal war against its African tribes. China also is seeking a foothold in the vast untapped reserves of Canada and Venezuela, chief foreign oil suppliers to the United States.

Skittish. The International Energy Agency, which advises industrialized nations on energy policy, predicts that developing nations like China will push worldwide demand up 47 percent to 121 million barrels per day by 2030. To keep pace, the agency warns, oil companies and oil-producing nations must spend about $ 3 trillion to develop new supplies. But many critics charge that the industry is falling short. One recent study by energy research firm John S. Herold estimates that global industry spending on exploration and production for 2004 totaled $ 130 billion. But most of that money went to expensive production from known reserves rather than to seek out new ones.

Economist Philip Verleger says oil executives have been hesitant to spend and be burned, as they were when oil prices collapsed in the late 1990s. "Companies have been reluctant to accelerate programs since, despite four years of prices that would clearly justify a higher rate of expansion," he said in a recent analysis warning that energy prices were a "gathering storm" over the global economy. For example, the world's largest public oil company, Exxon Mobil, saw its third-quarter profits soar 56 percent to $ 5.68 billion. However, its capital expenditures declined 5.5 percent to $ 3.63 billion.

Why the reluctance to shell out money on exploration? Some analysts lament the lack of "prospect availability," while others talk of "the opportunity-constrained market." In short, politics is curbing oil company ambitions. Consider, for example, how hopes for new oil vistas were dashed over the past year by Russia's decision to dismantle Yukos, its No. 2 oil producer, and jail its chief executive, a political rival of President Vladimir Putin, just as the company was poised to join the ranks of the largest multinationals. Only a year ago, Exxon Mobil was a rumored suitor for Yukos and its major untapped reserves in Siberia. But last month, Lee Raymond, Exxon Mobil's chief executive, said the Yukos affair would surely give pause to oil companies considering future projects in Russia. Indeed, questions are being raised about whether the Russian government will allow BP to keep the holdings it obtained in the largest such venture, a $ 6.5 billion investment made in 2003. "What are the rules of the game?" asks John Felmy, chief economist of the American Petroleum Institute. "You need to know before you spend shareholders' money."

Standing guard. Political uncertainty is the rule in nations holding the bulk of the world's remaining oil reserves. Production is on the decline in virtually all areas outside the former Soviet Union and OPEC--including important centers such as the North Sea between Norway and the United Kingdom and the North Slope of Prudhoe Bay in Alaska. "There aren't a lot of places left in the world where the big companies can spend a lot of money and expect to find the types of reserves they need to meet growth and production targets," says PFC Energy's Rodgers. That's why oil firms are salivating over President Bush's decision to lift sanctions on Libya, with the world's ninth-largest reserves, even though it means dealing with the mercurial Col. Muammar Qadhafi.

But "resource nationalism" remains the watchword. Saudi Arabia and Kuwait have refused to allow any private companies access to their treasured reserves. Iran has granted limited access, but U.S. companies are barred from participating by unilateral sanctions, and foreign firms have found that Iran's one-sided deals yield low returns on their investments. And, of course, there is Iraq, third behind Saudi Arabia and Iran in conventional oil reserves. "Iraq is probably the country with the most potential for production growth of any country in the world," says Rodgers, "if civil unrest is not an issue." That's a big "if," and although oil firms reportedly have had discussions with Iraq's interim government, no one expects new petroleum ventures in that hostile countryside anytime soon.

Few thought a decade ago that the political landscape for oil development would be so grim. "We thought the whole former Soviet Union was going to open up and be easy to do," says Amy Myers Jaffe, energy fellow at Rice University's Baker Institute for Public Policy. "And the Arabs would have to respond, and they would be opening up, too. And besides, the United States was seen as the hero in the Persian Gulf, and we had all this goodwill. Everything looked great in '92, and here we are. Things look a lot different, and it's reflected in the price."

No wonder so many companies have poured money into unconventional oil development in friendly Canada, where significant money and energy are required to excavate the vast petroleum reserves mixed with sands in the peculiar geology of Alberta. "The reason they are doing tar sands in Canada is that's the most commercial thing they can do with their money, given how little access there is in some places," says Jaffe.

Along with the basic problem of supply and demand, the oil industry also faces roadblocks in getting black gold to consumers. Oil tanker shortages have become a chronic problem. Pipelines are needed to move oil from remote reserves. And in the United States, the lack of refinery capacity has become a major issue, especially since several blends must be produced to meet varying environmental requirements in different parts of the country. And much of the crude oil now on the market is not the "light sweet" type found in west Texas or Alaska but the "heavy sour" variety of most OPEC nations, Russia, and Canada, which requires handling by more sophisticated refineries.

With oil poised to be one of the world's hottest commodities, it was perhaps inevitable that new investors would attempt to cash in. Most observers now agree that speculators are causing the market to react more quickly, and perhaps more dramatically, to fleeting news of political unrest or harsh weather. "Demand from investors who have accumulated large, net long positions in distant oil futures and options is expanding," Federal Reserve Chairman Alan Greenspan observed in an October speech on high oil prices. It's not just hedge funds that are roiling the market. Mutual fund and institutional investors also have gotten into the game. Energy analyst Katherine Spector at JPMorgan Chase & Co. estimates that money from this "passive investor class" has increased from $ 10 billion to perhaps $ 30 billion to $ 40 billion in just a couple of years. "Supply and demand determine the price, but the path we take to get there is increasingly influenced by speculative interest," says Spector. "That accounts for some of the peaks or troughs we've seen."

Of course, there have been more highs than lows in the past year, and the impact is being felt throughout the economy. "It's a concern of our customers and is something we've been watching all year," says Sharon Weber, spokesperson for Wal-Mart, which estimates that in 2004 high gasoline prices took $ 7 a week from the pockets of its shoppers (box, Page 46).

Double whammy. The impact on manufacturing has been severe. Rebecca Boenigk, chief executive officer of Neutral Posture, a Bryan, Texas, firm that makes ergonomic seating, first saw the price of raw materials like petroleum-based foam and plastic skyrocket. Then, the cost of getting the chairs into offices across the country jumped as trucks, rail, and other freight handlers slapped on fuel surcharges. "We got hit from lots of different sides," Boenigk says. Neutral Posture hiked its prices 7 percent but had to eat much of the added shipping costs since the firm had signed delivery deals with its customers based on lower gasoline costs.

How have oil prices affected transportation? The trucking industry will have paid an additional $ 9.5 billion for fuel in 2004. Although ridership is strong, airlines are facing $ 5 billion in losses for 2004, blaming their No. 2 cost, fuel. And freight railroads, despite record traffic, have seen their diesel fuel costs eat up much of the profit.

But there's also an insidious cost to the economy. For example, Gary Huss, president of Hudapack Metal Treating of Elkhorn, Wis., says that instead of building new plants or growing his business, most of his investment is going into making equipment more energy efficient. In lieu of using his own fleet of trucks and drivers, he has been relying on mail or United Parcel Service delivery for smaller orders. Like many manufacturers, Huss feels he cannot raise prices to cover higher energy costs because his customers can always buy cheaper metal goods overseas. "We consciously on a daily basis walk away from jobs we don't feel we can make money on based on today's prices," he says.

High fuel prices are prompting companies small and large to transform business practices, oftentimes not to the benefit of the U.S. worker. Dow Chemical saw its costs for energy and the natural gas it uses as a raw material soar an unprecedented $ 1.2 billion in the third quarter of 2004, yet its profits were up 86 percent over the previous year. "How did we do that?" Peter Molinaro, Dow's head of government affairs, asks. "With aggressive cost-cutting. We're on the path to 6,000 job cuts and shutting down 14 production units--many in the United States." Dow has embarked on projects in Oman, Kuwait, and even Germany, all places where it can find cheaper raw materials, while the company shuts down production and cancels expansion on the U.S. Gulf Coast. "Dow will grow, but we'll not be growing much here," says Molinaro.

Some experts believe that the market will eventually readjust, as it has in the past, as producers pump more oil and consumers use less. CERA's Burkhard notes that the year after the Iran-Iraq War, when the price of a barrel of oil was about $ 67 in inflation-adjusted terms, many predicted that the world would soon see $ 100 a barrel. Producers responded with vigorous exploration and development that ushered in a decade of relatively low prices. "This thought that we're at the end of cheap oil--I don't want to discount that view, but markets are dynamic, and unforeseen trends can lead us in another direction," says Burkhard. For example, if hybrid cars, which run partially on electricity, were to be widely adopted within 10 years, it could cause a steep drop in demand.

Convergence. Also, geopolitical pressure could soften unexpectedly. "What we've had is triple witching hour," says oil industry consultant Michael Lynch. "You've had concerns in Venezuela, Nigeria, Russia, and Saudi Arabia all at the same time. Almost all of these are unconnected, so it's just a coincidence that they all happened at the same time, and it seems unlikely to happen very often." He notes that the opening up of Libya or the easing of tensions in Iraq could suddenly allow supply to catch up with demand.

But ominously, Kuwait's oil minister says OPEC will work in the year ahead to keep prices from sliding. Analysts believe that's a sign the cartel has concluded that the world has done little to curb its demand amid high prices, so why return to the mid-$ 20 range it once viewed as the most comfortable level for both consumers and producers? Also, because OPEC prices its barrels in U.S. dollars, the producing countries have seen a bite taken out of their revenues as the value of the dollar has fallen precipitously. They'd like to make that money back.

"The first message American consumers need to hear," says A. G. Edwards's O'Grady, "[is] if you think the price of oil and gasoline has been volatile, you ain't seen nothin' yet."

Big Appetites

U.S. demand for oil dwarfs that of other countries, but China is getting thirstier.

Million barrels per day, 2004

United States	20.5
China	6.3
Japan	5.5
Former Soviet Union	3.7
Germany	2.6
India	2.5
Canada	2.3
South Korea	2.2
Brazil	2.2
Mexico	2.0

Sources: International Energy Agency, U.S. Energy Information Administration

GRAPHIC: Picture, This older oil field in Baku, Azerbaijan, is just one of many declining sources of crude. (THOMAS DWORZAK--MAGNUM); Picture, CHINA. To meet its increasing demand for oil, China has been wheeling and dealing with oil-rich nations such as Sudan and Venezuela. (DAVID BUTOW--REDUX FOR USN&WR); Picture, SAUDI ARABIA. The kingdom holds on tight to its reserves. (REZA--WEBISTAN); Picture, AZERBAIJAN. A new pipeline will deliver Baku's oil to the west. (YOLA MONAKHOV--PANOS); Picture, ALASKA. Oil production is on the wane at Prudhoe Bay. (PAUL SOUDERS--IPN / AURORA); Picture, CANADA.

Squeezing oil from tar sands is an expensive task. (KENNETH GARRETT--NATIONAL GEOGRAPHIC / GETTY IMAGES); Pictures: UNEASY CHAIR. Thanks to rising oil prices, Rebecca Boenigk of Neutral Posture, an ergonomic-chair maker in Texas, has to pay more for freight and raw materials. (PENNY DE LOS SANTOS FOR USN&WR (2)); Picture, HEAT'S ON. The high cost of energy makes it more expensive to operate--much less expand--a business, says Gary Huss of Hudapack Metal Treating in Elkhorn, Wis. (ALEC HUFF FOR USN&WR); Chart, Big Appetites (International Energy Agency; U.S. Energy Information Administration)